

Table 2.1-1**Chemical-Specific ARARs for Remedial Action at the Portland Harbor Superfund Site**

Portland Harbor Superfund Site

Portland, Oregon

Medium	Regulation/Citation	Criterion/Standard
Protection of surface water	Clean Water Act, 33 USC 1313 and 1314. Most recent 304(a) list, as updated up to issuance of the ROD	Under Section 304(a), minimum criteria are developed for water quality programs established by states. Two kinds of water quality criteria are developed: one for protection of human health, and one for protection of aquatic life.
Protection of potential drinking water sources	Safe Drinking Water Act, 42 USC 300f, 40 CFR Part 141, Subpart O, App. A. 40 CFR Part 143	Establishes Maximum Contaminant Level Goals (MCLGs) and Maximum Contaminant Levels (MCLs) to protect human health from contaminants in drinking water.
Measure of protectiveness of human health and the environment in all media	Oregon Environmental Cleanup Law ORS 465.315(b)(A). Oregon Hazardous Substance Remedial Action Rules OAR 340-122-0040(2)(a) and (c), 0115(2-4).	Sets standards for degree of cleanup required for hazardous substances. Establishes acceptable risk levels for human health at 1×10^{-6} for individual carcinogens, 1×10^{-5} for multiple carcinogens, and Hazard Index of 1 for noncarcinogens.
Protection of surface water	Water Pollution Control Act ORS 468B.048. Numeric water quality criteria set forth in OAR Part 340, Division 41, in particular Toxic Substances criterion at OAR Part 340-41-0033 (Tables 30 and 40), and Designated Uses for the Willamette Basin and Numeric Water Quality Criteria specified for the Willamette Basin at OAR 340-041-340 and 340-041-0345	DEQ is authorized to administer and enforce CWA program in Oregon. DEQ rules designate beneficial uses for water bodies and narrative and numeric water quality criteria necessary to protect those uses.

Comments
<p>Relevant and appropriate for cleanup standards for surface water and contaminated groundwater discharging to surface water if more stringent than promulgated state criteria. Relevant and Appropriate to short-term impacts from dredging and capping if more stringent than promulgated state criteria. Relevant and <u>Appropriate as criterion to apply to point source discharges used in</u></p> <p>Relevant and Appropriate as cleanup standards for groundwater and surface water at Portland Harbor, which are potential drinking water sources.</p>
<p>The final selected remedy will achieve these applicable human health carcinogen and noncarcinogen risk levels by implementation of dredging, capping, enhanced natural recovery, monitored natural recovery, on or off-site disposal, implementation of institutional controls and other response actions set forth in the ROD.</p>
<p>Oregon's numeric toxics water quality standards (Tables 30 and 40) are applicable requirements as cleanup standards for surface water to the extent they are more stringent than Clean Water Act 304(a) recommended criterion. All numeric water quality criteria are applicable standards of control for implementation of remedial actions occurring in waters of the state.</p>

Table 2.1-2**Action-Specific ARARs for Remedial Action at the Portland Harbor Superfund Site**

Portland Harbor Superfund Site

Portland, Oregon

Action	Regulation/Citation	Criterion/Standard
Actions that discharge dredged or fill material into navigable waters	Clean Water Act, Section 404 and Section 404(b)(1) Guidelines, 33 USC 1344, 40 CFR Part 230	Provides substantive restrictions and guidelines for assessing the impacts from the discharge of dredged and fill material into navigable waters of the United States and standards and criteria for compensatory mitigation for unavoidable impacts to waters of the US from response actions taken .
Actions that discharge pollutants to waters of U.S.	Clean Water Act, Section 402, 33 USC 1342	Regulates discharges of pollutants from point sources to waters of the U.S., and requires compliance with the standards, limitations and regulations promulgated per Sections 301, 304, 306, 307, 308 of the CWA.
Actions that discharge pollutants to waters of U.S.	Clean Water Act, Section 401, 33 USC 1341, 40 CFR Section, 121.2(a)(3), (4) and (5)	Any federally authorized activity which may result in any discharge into navigable waters requires reasonable assurance that the action will comply with applicable provisions of sections 1311, 1312, 1313, 1316, and 1317 of the Clean Water Act.
Actions resulting in discharges to waters of the State of Oregon, including removal and fill activities	Water Pollution Control Act ORS 468B.048. Designated Beneficial Uses, Numeric and Narrative Water Quality Standards set forth as either State-wide or specific to the Willamette Basin in OAR Part 340, Division 41	Any activity which may result in any discharge into waters of the state must meet Oregon Water Quality Standards.
Actions resulting in discharges to waters of the State of Oregon, including removal and fill activities	Compliance with Water Quality Requirements and Standards ORS 468b.035, OAR 340-041, 340-042, 340-048	Provides that federally-approved activities that may result in a discharge to waters of the State requires evaluation whether an activity may proceed and meet water quality standards with conditions, which if met, will ensure that water quality standards are met.

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Action	Regulation/Citation	Criterion/Standard
Actions resulting in discharges to waters of the State of Oregon, including removal and fill activities	ORS 196.825(5) -Statutory requirement to require mitigation. Implementing rules: OAR 141-085-510, 141-085-680, 141-085 0685, 141-085-0690, 141-085-0710, 141-085-715.	Substantive requirements for mitigation for the reasonably expected adverse effects of removal or fill in a project development in waters of the state, including in designated Essential Indigenous Anadromous Salmonid Habitat.
Actions in federal navigation channels	River and Harbors Act, Section 10, 33 USC Section 403. 33 CFR Section 322(e), 33 CFR Section 323.3 and Section 323.4(b) and (c).	The creation of any obstruction not affirmatively authorized by Congress, to the navigable capacity of any of the waters of the United States is prohibited; and it shall not be lawful to build or commence the building of any wharf, pier, dolphin, boom, weir, breakwater, bulkhead, jetty, or other structures in any port, roadstead, haven, harbor, canal, navigable river, or other water of the United States, outside established harbor lines. Placing of aids to navigation in navigable wates is under the purview of Section 10, and must meet requirements of the U.S. Coast Guard (33 CFR 330.5(a)(1)) See 33 CFR 322(e). If any discharge of dredged or fill material contains any toxic pollutant listed under section 307 of the CWA such discharge shall require compliance with Section 404 of the CWA. See 33 CFR Section 323.4(b). Placement of pilings, or discharge of dredged material that where the flow or circulation of waters of the United States may be impaired or the reach of such waters reduced must comply with Section 10.

Table 2.1-2**Action-Specific ARARs for Remedial Action at the Portland Harbor Superfund Site**

Portland Harbor Superfund Site

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Action	Regulation/Citation	Criterion/Standard
Actions resulting in the dredging and on-site disposal of dredged material that may be hazardous waste	Resource Conservation and Recovery Act. 40 CFR 260, 261	Establishes identification standards for hazardous waste and provides a qualified exemption from the definition of hazardous waste for dredged material hazardous waste if handled in accordance with the requirements of a Section 404 permit (40 CFR 261.4(g)).
On-site upland treatment, storage or disposal of hazardous waste	Resource Conservation and Recovery Act. 40 CFR 264 and 265	Management standards including record keeping, requirements for particular units such as tanks or containers, and other requirements applicable to owners and operators of hazardous waste treatment, storage and disposal facilities.
On-site upland placement and disposal of hazardous waste	Resource Conservation and Recovery Act. 40 CFR 268	Places land disposal restrictions, including treatment standards and related testing requirements on hazardous waste.
On-site Disposal of samples and remedial waste or upland dredged material	RCRA – Solid Waste. 40 CFR 257 Subpart A	Establishes criteria for determining which solid waste disposal facilities and practices pose a reasonable probability of adverse effects on health or the environment.
Upland and in-water disposal of dredge material	Hazardous Materials Transportation Act. 49 USC §5101 et seq. 40 CFR Parts 171-177	Establishes requirements for acceptance and transportation of hazardous materials by private, common, or contract carriers by motor vehicle.
Actions generating hazardous waste	Hazardous Waste and Hazardous Materials II. ORS 466.005(7) OAR 340-102-0011 - Hazardous Waste Determination	Defines "Hazardous Waste" and the rule contains the criteria by which anyone generating residue must determine if that residue is a hazardous waste.
Onsite treatment, disposal, storage of hazardous waste	Hazardous Waste and Hazardous Materials II. Identification and Listing of Hazardous Waste OAR 340-101-0033	Identifies additional residuals that are subject to regulation as hazardous waste under state law.

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Action	Regulation/Citation	Criterion/Standard
Onsite treatment, disposal, storage of hazardous waste	Solid Waste: General Provisions. ORS 459.005, OAR 340-093, 340-094	Substantive Requirements for the location, design, construction, operation, and closure of solid waste management facilities.
Onsite treatment, disposal, storage of non-hazardous waste	Solid Waste: Land Disposal Sites Other than Municipal Solid Waste Landfills ORS 459.015, OAR 340-095	Requirements for the management of solid wastes at land disposal sites other than municipal solid waste landfills.
Actions handling PCB remediation wastes and PCB containing material	Toxic Substances Control Act, 15 USC §2601 et seq., 40 CFR Part 761.60-761.79	Establishes requirements for handling, storage, and disposal of PCB-containing materials, including PCB remediation wastes, and sets performance standards for disposal technologies for materials/wastes with concentrations in excess of 50 mg/kg. Establishes decontamination standards for PCB contaminated debris.
Risk-based limits protective of human health for air emissions associated with soil or sediment removal	Clean Air Act, 40 CFR Parts 50 and 52	Air emissions from stationary and mobile sources that may be generated that creates threats to human health as defined in the regulations.
Actions generating air emissions	Oregon Air Pollution Control ORS 468A et. seq., General Emissions Standards OAR 340-226	DEQ is authorized to administer and enforce Clean Air program in Oregon. Rules provide general emission standards for fugitive emissions of air contaminants and require highest and best practicable treatment or control of such emissions.
Actions generating air emissions	Fugitive Emission Requirements OAR 340-208	Prohibits any handling, transporting, or storage of materials, or use of a road, or any equipment to be operated, without taking reasonable precautions to prevent particulate matter from becoming airborne. These rules for "special control areas" or other areas where fugitive emissions may cause nuisance and control measures are practicable.

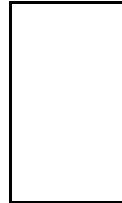
Table 2.1-2**Action-Specific ARARs for Remedial Action at the Portland Harbor Superfund Site**

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Action	Regulation/Citation	Criterion/Standard
Actions generating air emissions	Fish and Wildlife Coordination Act. 16 USC 662, 663 50 CFR 6.302(g)	Requires federal agencies to consider effects on fish and wildlife from projects that may alter a body of water and mitigate or compensate for project-related losses, which includes discharges of pollutants to water bodies.
Actions that may affect ESA listed and State protected fish and wildlife species	ODFW Fish Management Plans for the Willamette River. OAR 635, div 500	Provides basis for in-water work (dredging and filling) windows in the Willamette River.
Actions that may affect marine mammals	Marine Mammal Protection Act. 16 USC §1361 et seq. 50 CFR 216	Imposes restrictions on the taking, possession, transportation, selling, offering for sale, and importing of marine mammals.
Actions that may affect migratory birds	Migratory Bird Treaty Act. 16 USC §703 50 CFR §10.12	Makes it unlawful to take any migratory bird. "Take" is defined as pursuing, hunting, wounding, killing, capturing, trapping and collecting.
On-site actions that involve handling and disposal of dredged materials	OAR 340-100-0001 through -0002	Oregon adopted the federal Hazardous Waste Identification Rule that provides for an exclusion for dredged materials subject to the requirements of a permit under the Clean Water Act or the Marine Protection, Research, and Sanctuaries Act from RCRA Subtitle C.

Comments
Applicable for selecting in-water disposal sites and to evaluating impacts and mitigation for impacts from dredging, covering, capping, and provides standards for the designation, construction and monitoring of in-water disposal sites and in-water filling activities in the Willamette River.
Relevant and Appropriate to remedial activities that result in a point source discharge of pollutants to the river if more stringent than state promulgated point source requirements.
Relevant and Appropriate requirement, if more stringent than state implementation regulations, that in-water response actions not violate water quality standards, that conditions and other requirements on the discharge deemed necessary be placed on the discharge.
All state water quality standards, including numeric, narrative, and designated uses, are applicable requirements for any discharges to surface water from point sources and activities that may result in discharges to waters of the state, such as dredge and fill, de-watering sediments, and other remedial activities. All state water quality standards are relevant and appropriate to measuring controls on contaminated groundwater discharging to the Willamette River.
Applicable to implementation of the remedial action (e.g., dredging, capping, and construction of confined disposal facility) that may result in a discharge to waters of the State and requires reasonable assurance that water quality standards will be complied with and requires conditions and other requirements deemed necessary be placed on the discharge.



Comments
Applicable compensatory mitigation standards and requirements for impacts from dredge and fill activities, capping, and riverbank remediation.
Applicable requirement for how remedial actions are taken or constructed in the navigation channel. Applicable to the use of aids to navigation as institutional controls for maintaining the integrity of the selected remedy or placement of pilings or discharge of dredged material that may impair the flow or circulation of waters or reach of such waters.

Comments
Relevant and Appropriate to characterizing contaminated media or hazardous wastes generated from the action and designated for either onsite or off-site upland disposal; potentially relevant and appropriate for use in identifying acceptance criteria for confined in-water disposal.
Relevant and appropriate to remedial actions that involve treatment, storage, or disposal of hazardous waste on-site and in the uplands portion of the site.
Relevant and Appropriate for hazardous waste (listed or characteristic) generated from remedial actions and disposed of in an upland on-site disposal facility.
RCRA Solid Waste requirements may be relevant and appropriate to remedial actions that result in upland or in-water disposal of dredged material. Requirements for the management of solid waste landfills may be relevant and appropriate to upland disposal.
Relevant and Appropriate to on-site transport of hazardous materials.
Applicable to characterizing contaminated media as hazardous waste generated from the action and designated for either onsite or off-site or upland disposal; potentially relevant and appropriate for use in identifying acceptance criteria for confined in-water disposal.
Specifies requirements if remedial action will involve on-site treatment, disposal, or storage of additional listed wastes.

Comments
Applicable if upland disposal facility contemplated on-site for solid, nonhazardous, waste disposal, handling, treatment, or transfer. (Note: off-site transfer, treatment, handling, or disposal subject to all administrative and substantive state requirements.) [see previous comment]
Applicable to the on-site management and disposal of contaminated sediment, soil, and/or groundwater.
TSCA requirements may be applicable to the on-site handling, storage and disposal of contaminated material, debris, or surface water with PCB contamination.
Relevant and Appropriate to remedial activities that generate air emissions.[seems overly broad]
Applicable to remedial actions taking place in on-site uplands. Could apply to earth-moving equipment, dust from vehicle traffic, and mobile-source exhaust, among other things.
Applicable to remedial actions taking place in on-site uplands. Could apply to earth-moving equipment, dust from vehicle traffic, and mobile-source exhaust, among other things.

Comments
Potentially applicable to determining impacts and appropriate mitigation, if necessary, for effects on fish and wildlife from filling activities or discharges from point sources.
Potentially applicable to placing restrictions on when dredging and filling can occur in the Willamette River due to presence of ESA listed and state protected species at the site.
Potentially applicable to response actions that may could harm marine mammals in the Willamette River and may construction plans require best management practices for observing and avoiding contact with such species.
Potentially applicable to response actions that may could harm migratory birds using the Willamette River and may require that construction plans use best management practices for observing and avoiding contact with such species.
Applicable to handling and on-site disposal of dredged materials managed within an onsite disposal facility subject to the requirements of a permit under the Clean Water Act or Marine Protection, Research, and Sanctuaries Act.

Table 2.1-3**Location-Specific ARARs for Remedial Action at the Portland Harbor Superfund Site**

Portland Harbor Superfund Site

Portland, Oregon

Location	Regulation/Citation	Criterion/Standard
Presence of archaeologically or historically sensitive area	Native American Graves Protection and Reparation Act, 25 USC 3001-3013, 43 CFR 10	Requires Federal agencies and museums which have possession of or control over Native American cultural items (including human remains, associated and unassociated funerary items, sacred objects and objects of cultural patrimony) to compile an inventory of such items. Prescribes when such Federal agencies and museums must return Native American cultural items. "Museums" are defined as any institution or State or local government agency that receives Federal funds and has possession of, or control over, Native American cultural items.
Presence of archaeologically or historically sensitive area	Indian Graves and Protected Objects ORS 97.740-760	Prohibits willful removal of cairn, burial, human remains, funerary object, sacred object or object of cultural patrimony. Provides for re-interment of human remains or funerary objects under the supervision of the appropriate Indian tribe. Proposed excavation by a professional archaeologist of a native Indian cairn or burial requires written notification to the State Historic Preservation Officer and prior written consent of the appropriate Indian tribe. Prohibits persons from excavating, injuring, destroying or damaging archaeological sites or objects on public or private lands unless authorized.
Presence of archaeologically or historically sensitive area	Archaeological Objects and Sites ORS 358.905- 955 ORS 390.235	Imposes conditions for excavation or removal of archaeological or historical materials.
Presence of archaeologically or historically sensitive area	National Historic Preservation Act. 16 USC 470 et seq. 36 CFR Part 800	Requires the identification of historic properties potentially affected by the agency undertaking, and assessment of the effects on the historic property and seek ways to avoid, minimize or mitigate such effects. Historic property is any district, site, building, structure, or object included in or eligible for the National Register of Historic Places, including artifacts, records, and material remains related to such a property.
Presence of archaeologically or historically sensitive area	Archaeological and Historic Preservation Act. 16 USC 469a-1	Provides for the preservation of historical and archaeological data that may be irreparably lost as a result of a federally-approved project and mandates only preservation of the data.
Presence of floodplain as designated on FEMA Flood Insurance map	44 CFR 60.3(d)(2) and (3)	Prohibits encroachments that would result in any increase in flood levels during occurrence of base flood discharge.

Table 2.1-3**Location-Specific ARARs for Remedial Action at the Portland Harbor Superfund Site**

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Portland, Oregon

Location	Regulation/Citation	Criterion/Standard
Presence of floodplain as designated on map	Federal Emergency Management Act regulations at 44 CFR 9 (which sets forth the policy, procedure and responsibilities to implement and enforce Executive Orders 11988 (Management of Floodplain) To Be Considered , as amended by E.O. 13690 and 11990 (Protection of Wetlands) To Be Considered	Requirements for Flood Plain Management Regulations Areas Requires measures to reduce the risk of flood loss, minimize impact of floods, and restore and preserve the natural and beneficial values of floodplains.
Presence of wetlands	Executive Order for Wetlands Protection. Executive Order 11990 (1977) To Be Considered	Requires measures to avoid adversely impacting wetlands whenever possible, minimize wetland destruction, and preserve the value of wetlands.
Presence of state-listed threatened or endangered wildlife species	Protection and Conservation Programs ORS. 496.171 to 496.182. Survival Guidelines OAR 635-100-0135	Survival Guidelines are rules for state agency actions affecting species listed under Oregon's Threatened or Endangered Wildlife Species law.
Presence of essential fish habitat	Magnuson-Stevens Fishery Conservation and Management Act. 50 CFR Part.600.920	Evaluation of impacts to Essential Fish Habitat (EFH) is necessary for activities that may adversely affect EFH.
Presence of federally endangered or threatened species	Endangered Species Act. 16 USC 1536 (a)(2), Listing of endangered or threatened species per 50 CFR 17.11 and 17.12 or designation of critical habitat of such species listed in 50 CFR 17.95	Actions authorized, funded, or carried out by federal agencies may not jeopardize the continued existence of endangered or threatened species or result in the adverse modification of species' critical habitat. Agencies are to avoid jeopardy or take appropriate mitigation measures to avoid jeopardy.

Comments
If Native American cultural items are present on property belonging to the Oregon Division of State Lands (DSL) that is a part of the response action area, this requirement is potentially applicable. If Native American cultural items are collected by an entity which is either a federal agency or museum, then the requirements of the law are potentially applicable.
Potentially relevant and appropriate if archaeological material is encountered.
Potentially relevant and appropriate if archaeological material encountered.
Potentially applicable if historic properties are potentially affected by remedial activities.
Potentially applicable if historical and archaeological data may be irreparably lost by implementation of the remedial activities.
FEMA flood rise requirements are considered relevant and appropriate requirements for remedial actions.

Comments
Relevant and appropriate for assessing impacts, if any, to the floodplain and flood storage from the response action and developing compensatory mitigation that is beneficial to floodplain values.
Relevant and appropriate in assessing impacts to wetlands, if any, from the response action and for developing appropriate compensatory mitigation for the project.
Substantive requirements of Survival Guidelines relevant and appropriate to remedial activities affecting state-listed species.
Potentially applicable if the removal action may adversely affect EFH.
Applicable to remedial actions that may adversely impact endangered or threatened species or critical habitat that are present at the site.